FACTS ABOUT

A New National Ambient Air Quality Standard (NAAQS) for Ozone

How are NAAQS established?

The Federal Clean Air Act requires U.S. EPA to set NAAQS to protect public health and to review the adequacy of each NAAQS every five years. In the standard setting process, U.S. EPA conducts a comprehensive nationwide review of the scientific evidence relevant to the protection of public health and welfare. U.S. EPA then prepares a set of documents outlining the basis for the new standard and the documents are reviewed by its Clean Air Scientific Advisory Committee (CASAC). If U.S. EPA determines that a current standard is not sufficiently health-protective, it proposes a new standard after considering all public comments and recommendations of the CASAC.

What are the NAAQS for ozone and particulate matter?

Pollutant	Averaging Time	NAAQS Level[1]
Ozone2	8-Hour	0.070 ppm
PM2.5	24-Hour	35 µg/m3
	Annual	12 µg/m3
PM10	24-Hour	150 µg/m3

1 ppm = parts per million; µg/m3 = micrograms per cubic meter.
2 The new 8-hour ozone NAAQS is 0.070 ppm. The NAAQS of 0.08 ppm established in 1997 and the 2008 NAAQS of 0.075 ppm remain in place; U.S. EPA revoked the 1-hour ozone NAAQS (0.12 ppm) in 2005, but some areas have continued obligations under that standard.

What NAAQS are under review?

Each NAAQS is reviewed at five year intervals to ensure that the standards are based on the most recent scientific information. U.S. EPA released the final rule for a revised ozone standard on October 1, 2015.

What level has U.S. EPA selected for the new standard?

Based on its review of the latest health and scientific evidence for ozone, U.S. EPA has concluded that a more stringent standard is needed to adequately protect public health. The U.S. EPA administrator considered a range of values for the new 8 hour standard from 0.060 ppm to 0.070 ppm, as recommended by CASAC. She concluded that a level of 0.070 ppm is an appropriate level for the ozone NAAQS.

What are the health effects from ozone exposure?

The ozone Integrated Science Assessment (ISA) points to numerous scientific studies that report adverse health effects in people exposed to ozone, including death, hospitalization and emergency department visits for exacerbation of lung diseases, reduced lung function, and increased respiratory symptoms. The ISA concluded that respiratory effects were causally associated with short-term and likely causally associated with long-term ozone exposure. Cardiovascular effects and total mortality were judged to be likely causally associated with short-term exposure. Some studies, as well as the ozone Risk and Exposure Assessment, indicate that adverse health effects can occur when the 2008 8-hour average standard of 0.075 ppm is met.

Will a new ozone standard result in new ozone nonattainment areas in California?

Yes. California has 16 ozone nonattainment areas for the 2008 standard of 0.075 ppm. Based on air quality data reported through 2014, several additional areas, in Amador County, Sutter County, Tehama County, and Tuolumne County, currently have ozone levels above the new 0.070 ppm standard. Air quality continues to improve in California, and some of these areas may meet the new standard by the time nonattainment areas are fully defined in 2017.

How will a new ozone standard affect air quality planning in California?

Clean Air Act planning requirements will be triggered once again, including the need to submit an Infrastructure State Implementation Plan (i-SIP), due in 2018. The i SIP outlines the authorities,

programs, and resources California has in place to implement federal standards. Reasonably Available Control Technology or RACT SIPs, which provide a review of nonattainment area rules and a finding that these rules meet specific U.S. EPA criteria with respect to stringency, will be due a year later. Nonattainment SIPs, which detail the actual control strategies that will be implemented to reach attainment, will likely be due in 2020 or 2021. The following table provides estimated due dates for Clean Air Act planning related actions, relative to the adoption of a new standard in 2015.

Action	Estimated Deadline
Final Area Designations	2017
Infrastructure SIP Due	2018
RACT SIPs Due	2019
Attainment SIPs Due	2020 / 2021
Attainment Deadlines	2020 to 2037

When areas are designated, they will be classified to reflect the severity of their ozone challenge, based on monitoring data. Each area's classification determines its attainment deadline. The most challenging areas will have longer to attain (up to 20 years for extreme areas) than areas with less severe ozone.

What efforts will be required to attain the new standard?

A new more stringent ozone standard will require continuing and long term efforts to reduce air pollutant emissions in California. The South Coast Air Basin and the San Joaquin Valley Air Basin are the nation's two most challenging ozone nonattainment areas, and a tighter standard will require significant emission reductions through 2035 and beyond. The programs needed to bring these two regions into compliance with existing standards are expected to enable the rest of California to meet a new ozone standard over the next decade or so.

Meeting both the 2008 and new ozone standards in the South Coast and San Joaquin Valley air basins will rely on the development and widespread use of advanced, more efficient technologies, particularly with mobile sources, and cleaner transportation fuels. This will require comprehensive efforts at the federal, State, and local level. California's programs to reduce greenhouse gas emissions complement and support actions needed to meet the NAAQS.

Toward that end, in a just released discussion draft, ARB has set out a proposed mobile source strategy that continues to build on efforts to meet critical air quality and climate goals over the next fifteen years.

The strategy is designed to provide public health protection for the millions of Californians that live in regions that still breathe unhealthy air, address California's role as part of global needed actions to slow global warming, and reduce our dependence on petroleum.

It includes an integrated portfolio of actions to meet California's interconnected goals that will:

- Establish requirements for cleaner technologies;
- Ensure in-use performance over the lifetime of the vehicle;
- Increase the penetration of zero emission technologies for cars, trucks, and off-road equipment;
- Require cleaner burning renewable fuels; and
- Enhance efficiencies in moving people and freight throughout the state.

This strategy will also provide a comprehensive foundation for the ongoing transformation of the mobile source fleet to meet the more health protective ozone standard released today.

What is the new "secondary" ozone standard?

In addition to the setting of NAAQS to protect public health, U.S. EPA sets "secondary" standards to protect against other impacts of air pollution such as damage to crops, forests, and ecosystems. States must meet secondary standards as expeditiously as possible. The new secondary ozone NAAQS has been set equivalent to the primary standard: an 8-hour average of 0.070 ppm. Actions needed to meet the health based primary NAAQS by the applicable deadlines are expected to address the air quality planning requirements for the secondary standard as well.